Yusuke Doi

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SUMMARY

Senior Software Engineer (ex-Meta, ex-Amazon, ex-Microsoft) specializing in scalable AI infrastructure, distributed systems, and cloud-native backend platforms. Experienced building observability, telemetry, and performance optimization solutions supporting hundreds of millions of users across AWS and Azure.

TECHNICAL SKILLS

- **Languages:** Python, JavaScript, TypeScript, C#
- **Frontend:** React, Next.js, Angular
- **Backend:** FastAPI, Django, Node.js, .NET, REST APIs
- **AI / Automation:** LLM integration, workflow automation, anomaly detection
- **Data & Systems:** Kafka, PostgreSQL, MongoDB, distributed systems
- **Cloud & DevOps:** AWS (Lambda, S3, ECS), Docker, CI/CD (GitLab)

PROFESSIONAL EXPERIENCE

Senior Software Engineer

Anon *Remote | Aug 2023 – Jan 2026*

- Designed and implemented backend services enabling AI agents to securely authenticate and interact with third-party platforms without native APIs.
- Built scalable REST and async APIs using FastAPI (Python) to support high-throughput automation workflows and structured data pipelines.
- Developed internal dashboard and workflow tooling using Next.js (React), enabling configuration, monitoring, and debugging of AI agent tasks.
- Architected distributed services supporting automated browser-based data extraction, form interaction, and cross-system workflow execution.
- Implemented observability stack including structured logging, tracing, and metrics to monitor AI agent performance and system reliability.
- Integrated LLM-driven automation workflows with backend orchestration services, enabling dynamic decision logic and task execution.
- Improved platform robustness using asynchronous task queues, retry mechanisms, and fault-tolerant service patterns.
- Deployed containerized services using Docker and AWS cloud infrastructure, supporting scalable execution environments.
- Collaborated cross-functionally with product and ML engineers to productionize AI-powered automation features.
- Built reusable developer tooling improving debugging visibility and operational transparency across agent lifecycle pipelines.

Senior Software Engineer

Meta *Seattle, WA | Apr 2021 – Jul 2023*

- Led the development of a flexible observability foundation for AI infrastructure and internal tooling, enabling scalable growth and streamlined research-to-production workflows.
- Contributed to the development of a modular, distributed framework enabling goal-driven autonomous agent behavior across multiple AI products.
- Embedded advanced logging, structured tracing, and real-time monitoring into core AI systems to ensure transparency, fault tolerance, and low-latency diagnostics.
- Integrated telemetry signals, service-level logging, and runtime metrics into inference pipelines to support both engineering and product decision-making.
- Enhanced runtime diagnostics and debuggability through tailored observability tooling and adaptive trace frameworks.
- Architected a telemetry and logging infrastructure for AR/MR devices, enabling reliable data flow from edge to backend.
- Implemented structured logging and real-time performance monitoring across firmware and application layers.
- Delivered a reusable observability platform designed for future AR/VR products and internal developer tooling.
- Worked closely with research, product, and infra teams across MetaAI and Reality Labs to scale backend systems and optimize deployment pipelines.
- Fostered an engineering culture of proactive monitoring, fast feedback loops, and iterative system tuning.

Senior Software Engineer

Amazon *Seattle, WA | Jun 2016 – Mar 2021*

- Contributed to a platform team responsible for providing metadata powering the Prime Video homepage, including icons, text, and configurable carousels across multiple devices, countries, and other dimensions.
- Spearheaded development of new platform features by collaborating with stakeholders to refine requirements and implement scalable solutions.
- Implemented dynamic configuration capabilities and customer-focused engagement features to improve content personalization and flexibility.
- Developed core services in Java, with supporting tooling written in various scripting languages.

- Owned and maintained the full end-to-end test suite used to benchmark Amazon services (e.g., Alexa, Prime Video) across digital devices such as smartphones and tablets.
- Generated millions of daily data points related to latency and error rates, enabling internal teams to make informed business decisions (e.g., go/no-go and feature release readiness).
- Contributed to the design and implementation of a next-generation benchmarking platform leveraging AWS IoT technologies.
- Applied Computer Vision and other Machine Learning techniques to improve robustness and reliability of automated benchmarking systems.
- Developed backend services in Python with supporting scripting in Bash, utilizing multiple AWS services to build scalable, distributed infrastructure.

Software Engineer

Microsoft *Redmond, WA | Jul 2012 – Jun 2016*

- Developed core C++ library powering the Mail & Calendar applications across Windows 8, Windows 10, and companion clients including Outlook for iOS and Android, supporting 600M+ monthly active users.
- Optimized engineering productivity by reducing unit test runtime by 90% (50 min → 5 min) and decreasing cloud-based build pipeline time by 60% (~2 hours) through improvements in test architecture, parallelization, and build configuration using Azure DevOps pipelines.
- Improved application startup performance by 30% and reduced memory churn by 50% (~40MB reduction) through low-level performance tuning in C++ and profiling across Windows runtime components.
- Spearheaded development of cross-device notification features for Windows 8/10 Mail & Calendar ecosystem, including privacy-preserving (obfuscated) notifications and “dismiss everywhere” synchronization, reaching 100M+ users across desktop and mobile devices.
- Built an Electron-based email prototype using TypeScript with N-API C++ bindings to accelerate feature experimentation and validation of cross-platform UX patterns prior to native implementation.
- Contributed to cloud-connected features using Microsoft Azure services (identity, sync, telemetry, and notification infrastructure), enabling reliable data synchronization and consistent user experiences across devices.

EDUCATION

University of Washington

- **Bachelor of Science in Computer Science** *Seattle, WA | Sep 2006 – Jun 2010*
- **Master of Science in Computer Science** *Seattle, WA | Sep 2010 – Jun 2012*